AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. This listing of claims will replace all prior versions and listings of claims in the application. Deletions of text are indicated with ~~strikethrough~~ or double bracket [[xxx]]. Added text is shown by underline. Claim status is indicated as **withdrawn, currently amended, original, previously presented** or **cancelled**.

LISTING OF THE CLAIMS:

1. (currently amended) A method of generating a plant comprising ~~producing~~ transformed plant cells, the method comprising:

culturing at least one non-apical meristemic cell to produce at least one shoot; ~~and~~,

culturing at least one leaf base explant or core section explant from the shoot to produce one or more organogenic cells;

introducing at least one nucleic acid segment into the organogenic cells to produce one or more transformed organogenic cells; and

generating at least one plant from the transformed organogenic cells without going through a callus intermediate.

2-4. (cancelled)

5. (previously presented) The method of claim **1**, wherein the non-apical meristemic cell comprises a pineapple cell.

6-9. (cancelled)

10. (previously presented) The method of claim **1**,

wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;

wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one exogenous gene;

wherein the nucleic acid segment comprises at least one antisense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;

wherein the nucleic acid segment encodes at least one polypeptide transcription factor; or,

wherein the nucleic acid segment encodes at least one promoter and/or at least one enhancer, which nucleic acid segment homologously recombines with at least one promoter and/or at least one enhancer of at least one endogenous gene.

11-17. (cancelled)

18. (original) The method of claim **1**, wherein the nucleic acid segment encodes a polypeptide.

19 and 20. (cancelled)

21. (original) The method of claim **18**, wherein the polypeptide is heterologous to the organogenic cells.

22. (original) The method of claim **18**, wherein the polypeptide is homologous to at least one endogenous polypeptide of the organogenic cells.

23. (previously presented) The method of claim **18**, wherein the polypeptide comprises at least one carotenoid biosynthetic polypeptide that is selected from the group consisting of: an isomerase, an isopentenyl diphosphate isomerase, a geranylgeranyl pyrophosphate synthase, a phytoene synthase, a phytoene desaturase, a ζ-carotene desaturase, a lycopene β-cyclase, a lycopene ε-cyclase, a β-carotene hydroxylase, and an ε-hydroxylase.

24 and 25. (cancelled)

26. (withdrawn) A method of producing transformed plant cells, the method comprising:

culturing at least one meristemic cell to produce at least one shoot;

culturing at least one explant from the shoot to produce one or more organogenic cells; and,

introducing at least one nucleic acid segment into the organogenic cells to produce one or more transformed organogenic cells.

27. (withdrawn) The method of claim **26**, wherein the explant comprises one or more non-apical meristemic cells.

28-30. (cancelled)

31. (withdrawn) The method of claim **26**, wherein the non-apical meristemic cell comprises a pineapple cell.

32-35. (cancelled)

36. (withdrawn) The method of claim **26**, wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;

wherein the nucleic acid segment comprises at least one sense nucleic acid segment that corresponds to at least a portion of at least one exogenous gene;

wherein the nucleic acid segment comprises at least one antisense nucleic acid segment that corresponds to at least a portion of at least one endogenous gene;

wherein the nucleic acid segment encodes at least one polypeptide transcription factor; or,

wherein the nucleic acid segment encodes at least one promoter and/or at least one enhancer, which nucleic acid segment homologously recombines with at least one promoter and/or at least one enhancer of at least one endogenous gene.

37-42. (cancelled)

43. (withdrawn) The method of claim **26** further comprising:

generating at least one plant from the transformed organogenic cells.

44. (withdrawn) The method of claim **26**, wherein the meristemic cell is derived from a core and/or a stem of a crown of a pineapple plant or a leaf base of pineapple plant.

45. (withdrawn) The method of claim **44**, wherein the meristemic cell is a lateral meristemic cell or a meristem cell induced by tissue culture.

46. (withdrawn) The method of claim **44**, wherein the meristemic cell is a crown tip meristemic cell.

47. (withdrawn) The method of claim **26**, wherein the nucleic acid segment encodes a polypeptide.

48 and 49. (canceled)

50. (withdrawn) The method of claim **47**, wherein the polypeptide is heterologous to the organogenic cells.

51. (withdrawn) The method of claim **47**, wherein the polypeptide is homologous to at least one endogenous polypeptide of the organogenic cells.

52. (withdrawn) The method of claim **47**, wherein the polypeptide comprises at least one carotenoid biosynthetic polypeptide that is selected from the group consisting of: an isomerase, an isopentenyl diphosphate isomerase, a geranylgeranyl pyrophosphate synthase, a phytoene synthase, a phytoene desaturase, a ζ-carotene desaturase, a lycopene β-cyclase, a lycopene ε-cyclase, a β-carotene hydroxylase, and an ε-hydroxylase.

53 and 54. (cancelled)